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OUR LOST PET.

THE *besoin d'aimer* is perhaps one of the least mean of human weaknesses. Many are the troubles it causes to all of us, and yet we would fain not quite get rid of it, and are, on the whole, rather more respectable people with it than without it. For the unfortunate man to whom even his wife is only

A little better than his dog, a little dearer than his horse; for the forlorn old maid who, dying without heirs, endows her twelve parrots with enough to make the fortune of more than one poor family, it is at least a degree better to be fond of something, be it only a brute beast, than nothing. And many a brute beast is capable of being raised, by education, attention, and kindness, to an affectionate rationality which makes it quite as pleasant company, alas! as a great many human beings.

This is not meant to be an essay in defence of pets—often most intolerable nuisances to everybody but the possessor—pet dogs (perhaps the most unbearable), pet birds, fowls, rabbits, monkeys—and the long line of domesticated quadrupeds and bipeds, down to the featherless biped, the child-pet, or the charity-pet, whose lot is the most cruel-kind of any. I am only going to tell a very plain and simple story about a lost pet of ours, who cost us the usual amount of pain which all who are guilty of the afore-named human weakness must consent to endure.

We—that is, myself and the sharer in my loss—are not universally benevolent. We do not take to our bosoms every walking, hopping, and creeping thing. We are eclectic in our tastes, and though we hope we would treat civilly and kindly every creature alive, still, we have never had any particular interest in more than one sort of pets, and that is *cats*.

I hope the gentle reader will not here immediately lay down this paper in a mood of calm contempt; or if he has done so, may I respectfully request him to take it up again? I assure him that he shall meet with nothing insanely extravagant, or sentimentally maudlin; that his prejudices will be treated with deference, and himself regarded as a person who is simply mistaken—nothing more. He never could have had a pet cat.

We have had—many: the fact that a cat's nine lives do not equal one human being's, necessitating that plural. Otherwise, we would have kept faithful to this day unto our first favourite 'Muff'—fallen in with at the age of three—or his successor, our veritable first-love, Rose; Rose, the flower of cats, who

bloomed in our household for ten years. My heart softens as I recall her. Her memory is green still; and I may yet, for a newer generation, write a *Biography of our Rose*.

Since her day, we have both had several pets, *en passant*—confiding cats who followed us home through London streets, as they always have a trick of doing; eccentric cats who, changing their natures, would go shooting in the forests, 'point' the game, and bring it to the master with an unflinching faithfulness; sea-borne cats, cherished during half a voyage, and then missed—after which rumoured to have been seen floating away, helplessly mewing, for a quarter of a mile astern. Yet we never had but one pet who at all supplied the place of the never-forgotten Rose. Of him I am now about to tell.

He was the first-born of his mother, but in no wise like her—she being the ugliest, stupidest, and most untender of feline animals. Her very kittens she would carry into damp corners and under grates, and there forsake them, to be trodden to death or shovelled unwittingly on the back of the fire: nay, with some she is reported to have done as the New Zealand husband did with the wife whom he couldn't keep and was too fond of to part with—she is reported to have eaten them. Peace to her manes! Nothing in her life ever became her like the leaving of it.

But her son was quite a different character. His beauty was his least merit. In kittenhood he had such winning ways that he was continually asked to tea in the parlour; cradled in apron-pockets, gowns, and shirt-fronts; taught to walk on the table, and educated with a care and distinction which could not but make him the most gentlemanly of cats. And such he grew. There was a conscious 'fine-young-fellowism' in the very arch of his back, and curve of his handsome tail. His tail, we always said, was his weak point—a pardonable vanity. He seemed to take a conscious pride in it, as a fashionable Antinous might in his curls, his hands, or his whiskers. For his morals, they were as unexceptionable as his appearance. He was rarely heard to mew, even for his dinner; and as for theft, I remember the sublime indignation of his first friend and protector, the cook, when one day I suggested shutting the pantry-door: 'He steal! He never would think of such a thing!'

Have I sufficiently indicated his mental and moral perfections? Add to these a social and affectionate disposition, remarkable even in parlour-educated cats, and a general suavity of manner which made him considerate to the dog, and patronisingly indifferent to the fowls—and what more need be said of him, except his name?

This cannot be revealed; such publicity might wound his delicate sensitiveness. In this article he must only be known as 'Lo.' No bad name either: there was once a Saint Lo, of knightly memory; so 'Lo' is well suited to designate the most chivalrous of cats.

He grew up to maturity in the house where he was born. For three years his familiar apple-tree, on which he tried his youthful claws, blossomed and bore; for three years, the sparrows in the thorn and willow provided him with a little useful recreation—no worse, certainly, than deer-stalking and hare-hunting; and then his destiny darkened. We were about to flit—a long flitting of some hundred miles and more; and of all the questions involved therein, one of the most difficult was, what was to be done with Lo? We could not leave him; we did not like to give him away; and yet we feared that the cry, 'A new home—who'll follow?' would never be responded to by him. The most frequent suggestion was to take his photograph, and then give him a little dose of the 'fixing' material, which would 'fix' both him and his likeness for ever in this world, and save all further trouble. But this idea was not likely to be carried out.

'When there's a will there's a way.' I made up my mind concerning him.

On the day of the flitting—when he was lying peacefully and unconsciously on his native kitchen hearth, which he was never more to behold—I carried him, purring and fondling, to an empty room upstairs, and locked him in, together with a hamper and dinner. He did not quite understand the proceeding, but accommodated himself to circumstances, and lay down to sleep in the sunshine. There, ignorant of the black future, he passed his day. At nightfall I packed him and sewed him up, still purring, in the hamper of his woes. To parody the old axiom: 'When a cat's carried, his sorrow begins.' From that hour there was no more peace for our unfortunate Lo.

He, with myself, was taken in for a week by a benevolent family, who kept a bird. This necessitated Lo's solitary confinement in a wash-house. Thither, almost exanimate from fright—I believe he even fainted in my arms—was he conveyed; and there, though visited, fed, and consoled with, he remained in a state of mind and body of indescribable wretchedness—sleeping in the copper, and at the least noise retiring for refuge up the chimney. His appearance, when being repacked for his second journey, was that of a disconsolate, half-idiotic sweep.

Through all the roar of London, on the top of cab or omnibus, was borne the luckless cat. What could he have thought of the great Babel? he who, among suburban gardens and fields, had passed his peaceful days. He never uttered a sound; not even when, finding no boy at hand, I took up his hamper myself, and carried it the length of a square, conversing with him meantime, till the sight of a passer-by turning round, reminded me that this might possibly convey to the public in general the impression of my being slightly insane. One pause he had in his miseries—one happy evening by a charitable kitchen hearth, and then he was, hamper and all, consigned to the parcel-van of the northern mail.

'Please take care of it—it's a cat.'

'A what, ma'am?' asked the magnificent-looking guard.

'A cat—a live cat.'

He laughed. 'O yes, ma'am—all right.' And so I bade poor Lo a temporary farewell.

Letters communicated his wellbeing. He had arrived at home—had recovered from his first paroxysms of terror—had even begun to wash himself and appear like a cat of civilised mien. There was

hope that I should find him sitting happily on the hearth, which, we are weak enough to fancy, never looks quite comfortable and home-like without a cat. But hope deceived. My first question: 'How is he?' was answered dolefully: 'He has run away.'

Ay, just when his troubles were ended, when his mistress was coming home, when all the delights of milk and cream, sunshiny lawns to sleep on, green trees to climb, mice, and—dare I say it?—young birds to eat, were opening before him—he ran away! We returned to a catless fireside.

Of course, every search was made: a reward offered, the village policeman applied to; but day after day passed, and no sight of Lo. Sometimes flying rumours reached us of his being seen in gardens, or scampering across fields, or sheltering in some stable or barn. Once, the policeman paid us a special visit, stating formally his knowledge of his whereabouts, and that every measure should be taken for his recovery; but even the professional skill, worthy of being exercised on some distinguished criminal, failed with regard to our cat. We had almost given him up for lost.

Now, one ought never patiently to submit to any loss, till every possible means tried have proved it irremediable. One evening after he had been a week missing, and taking into account his exceedingly shy and timid disposition, the strange country in which he had lost himself, and his utter ignorance of ill-usage, we began to relinquish all hope of his return, I resolved to go in search of the cat myself. A scheme about as wild as starting to hunt up a brother in Australia, or a friend in the far west—a sort of 'Evangeline' expedition: yet most women reading Longfellow's exquisite poem, must feel that such a proceeding as Evangeline's would be perfectly natural, reasonable, and probable under similar circumstances.

So, after tea, I went out. It was a lovely evening, with hedges just budding, and thrushes just beginning to pipe out that peculiar rich note which always reminds one of the return of spring—an evening when one enjoys, and likes to think of all those belonging to one as enjoying, the renewal of nature, life, and hope. I did not like to think of even my cat—a poor cat, for whom was no after-life, no immortal and eternal spring—dying in a ditch, or starved, beaten, ill-used, till death was the kindest thing I could hope for him. I almost wished I had taken his friend's advice, that we had photographed him, and 'fixed' him, safe from all mortal care.

At the nearest house, where he had once been seen, I had inquired the day before. Both the civil husband and pleasant-looking wife knew quite well 'the lady who had lost her cat': they sympathised; and I felt sure that if he appeared again he would be coaxed, caught, and brought safe home. I then continued my pilgrimage.

Door after door did I attack with the stereotyped inquiry: 'Have you seen a strange cat? I have lost my pet cat, which I brought all the way from London; he is a great beauty, gray, with a particularly fine tail. I will give five shillings to anybody who brings him back; my name and address are so and so.'

This brief and simple formula was repeated, with slight *ad libitum* variations, from house to house within a mile. Once I ventured to address a milk-woman, with no result; she was a stranger: and once a little boy, playing about the road, whom I afterwards heard commenting to a friend in this wise: 'I say, Jack, that lady's hunting after a strange cat. He, he, he! I wouldn't hunt after a strange cat—would you?'

Equally unsympathetic was an elderly gentleman, the owner of a beautiful house, garden, and conservatory, and who came most politely to the door, his bonnie little grand-daughter holding by his hand. He had a fine face, long silvery hair, was bland and

amiable of demeanour, reminding me of Mr Dickens's 'Casby the Patriarch.'

'Madam,' said he, after hearing my tale, 'if those animals are allowed to inhabit such a place, I devoutly wish all the cats in this world were in paradise. They are the ruin of us horticulturalists. Do not regret yours. I can supply you out of my garden with any number, dead or alive.'

I explained that mine was an individual pet.

'Then, madam, could you not place your affections upon pets more worthy?' and he stroked the little girl's pretty flaxen hair. 'I am sorry to wound your feelings; but there have been—and I should rather regret their leaving—some Birmingham people in this neighbourhood who make a trade of catching and skinning—cats.'

I turned away, yet could hardly forbear a smile; the eccentric, but, I firmly believe, well-meaning old gentleman, received my adieus, and bowed me to the very gate.

Many another house I tried; my search having one result—namely, the discovery that I had a number of nice neighbours—old ladies, neat as a new pin; spruce parlour-maids; kindly mistresses, mostly with babies—such an abundance of civil tongues, and pleasant, good-natured, nay, handsome faces, as might well be satisfactory to a new-comer into this country place. I also gained one consolation, that it was the safest neighbourhood in which Lo could possibly have been lost, since all the good folk seemed personally acquainted, not only with one another, but with one another's cats. Ours might yet turn up, or, if not, might find an asylum in the bosom of some unknown family, who would console him for the cruel mistress and uncomprehended miseries which doubtless had unsettled his reason, and driven him to despairing flight.

So, having done all that could be done, I was fain to turn homeward—

In the spring twilight, in the coloured twilight,

—never seen except in spring. It tinted the bare trees and brown hedges, throwing over the whole sky a tender light, and changing the shiny bit of far-away western sea into a lake of burning roses. Wonderful was the peace over all animate and inanimate nature, as it lay, waiting in faith the step-by-step advance of another unknown year.

Passing the lodge of the big house of the village—an open door, fire-light, and children's prattle, inspired me with one last vague hope. I knocked.

'Have you seen,' &c., &c., &c., as usual.

No. Yet the sight disclosed almost atoned for the disappointment. An interior, such as only an English cottage could furnish; a cottager's wife, such as Morland or Gainsborough would have delighted to immortalise. Her face, healthy, fair, and sweet—nay, downright beautiful, was reflected feature by feature in two other little faces—one staring out bravely from beside mother, the other half-hidden in her gown. This last charming little face, which no persuasions could allure from its shelter, was itself worth the whole evening's pilgrimage to look at; and the centre picture, half twilight, half fire-light, is a thing to be set down in memory, among passing glimpses of unutterably beautiful fragments, which remain dagger-retyped as such, for ever.

This episode, with the rest, amused us for some time, when, coming home, we talked over our chances of recovering our lost pet; conjecturing that for a month to come, we should have all the stray cats of the neighbourhood brought to us for recognition—except the right one. But to 'greet ower spilt milk' is not our custom, lest life should become not only a *via lactea*, but a *via lachrymosa*. So, having done our best, we dismissed the subject.

Next day, sitting at work, I heard a scuffle in the hall; the door was flung joyfully open—

'Ma'am, there's your cat.'

It was indeed. Gaunt, scared, dirty; fierce with hunger, and half-wild with fright, the poor runaway was brought home to his mistress's arms.

After the immemorial fashion, I drop a veil over the pathetic scene which followed.

He now lies fast asleep at my feet. He has made a clean breast of it—that is to say, he has resumed his usual costume of white shirt-front and white stockings, which contributes so largely to his gentlemanly appearance. He has also gradually lost his scared look, and is coming into his right mind. A few minutes since, he was walking over my desk, arching his poor thin back in the ancient fashion, and sweeping my face with his sadly diminished but still inimitable tail; putting his paws on my shoulders, and making frantic efforts at an affectionate salutation—had I not a trifling objection to that ceremony.

Surely, after all this bitter experience, he will recognise his truest friends—true even in their unkindness; will believe in his new quarters as home, and play the prodigal no more.

Poor Lo! I hope it is not applying profanely 'the noblest sentiments of the human heart,' if, as he lies there, snugly and safely, I involuntarily hum to myself a verse out of *The Clerk's Two Sons of Owsenford*:

The hallow days o' Yule were come,
And the nights were lang and mirk,
When in there cam her ain twa sons,
Wi' their hats made o' the birk.

Blaw up the fire now, maidens mine,
Bring water frae the well:
For a' my house sall feast this night,
Since my twa sons are well.

And she has gane and made their bed,
She's made it saft and fine,
And she's happit them in her gay mantil,
Because they were her ain.

(Bless us, what would 'Mr Casby' say?)

I here end my story. Better—since fortune is fickle, and affection often vain—end it now; lest, as Madame Cottin says in the final sentence of her *Exiles of Siberia*—'did I continue this history, I might have to chronicle a new misfortune.'

THE TRAINING OF BEASTS IN ANCIENT ROME.*

THE art of taming and training wild beasts was never practised on a grander scale than during the latter period of Roman antiquity. Very justly has Goethe represented 'delight in the wonderful, the incredible, and the monstrous,' as the most striking peculiarity of the later Romans. In fact, it may be said, that among these degenerate descendants of the world-conquerors, throughout a constant succession of the most powerful excitements, so effeminate a relaxation had crept in, that only one thing could give them interest—namely, the accomplishment of the impossible. Theatres that turned round upon pivots with all the audience, buildings in the sea, dishes composed of rarities from all quarters of the globe, are some of the fruits of this tendency, which ignored the limits of space and time, and regarded the laws of nature with scorn.

It was not enough that the rarest, fiercest, and most beautiful beasts were gathered together in Rome from the ends of the earth, they were also compelled

*Translated from the German.

to lay aside their instinctive impulses, and be obedient to what was most repugnant to their nature. The art of taming wild beasts was, at first, connected with the exhibitions of the amphitheatre and the circus; but to avoid wearying the public by successive repetitions of bloody contests between men and animals, recourse was had to games in which naturally tame beasts were exhibited along with others that had been tamed by art. In consequence of the great number of amphitheatrical displays, the labour of taming and training gave employment to multitudes of men. In an astrological poem of the early imperial date, where the constellations which predestine men to their several callings are given, there is found the horoscope of those who 'tame the tiger, soften the rage of the lion, converse with elephants, and render these unwieldy masses fit for human arts and duties.' In another poem of the fourth century of our era, the horoscope is represented of those who 'make bears, bulls, and lions fit for intercourse with men.' The whole imperial era, in fact, seems to have abounded in these tamers (*mansuetarii*).

Pliny observes that the smallest and most timid of beasts and birds, such as the swallow and the mouse, were altogether intractable; while the largest and fiercest, as the elephant and lion, were easy to tame. The ancient Indians had already very successfully tutored the elephant; but in Rome the discipline was carried to a much greater length. We quote Pliny's own words: 'In a play given by Germanicus, the elephants brought their clumsy evolutions into the shape of a dance. Sometimes they used to brandish their weapons in the air, to fight one another like gladiators, and to riot in a wanton dance. Later, they practised on the rope, on which four of them carried another in a litter, which was supposed to represent a woman in childbed, and whom they let down so gently upon the sofas of a guest-table, that they disturbed none of its occupants. It is told of an elephant that was slow at learning, and which had often been beaten on that account, that it was watched in the night, and found practising its lesson by itself. These huge animals mounted the tight-ropes with the greatest agility, and, what is even more remarkable, descended them with equal ease. Mucianus mentions an elephant that had learned to write Greek, and to its performances used to add: "I have written this with my own hand," &c.'

The taming of lions, also, had already been prosecuted to a great extent in ancient Greece and in Africa. The Indian lion, according to the Greek naturalist, was particularly easy to train when young. The Carthaginian Hanno is said to have been the first who went about attended by a tamed lion. Berenice, the Egyptian queen, had a favourite lion that ate at her table and used to lick her cheeks. Marc Antony rode about Rome in a chariot in which two lions were yoked. Domitian had a lion that was taught to carry the game in hunting, who let himself be chased by hares, and into whose throat one might thrust his hand with impunity. This prodigy was the subject of several poems. Martial counsels the hare to take refuge from the pursuit of the hounds in the jaws of the lion, and asks which was the greater miracle, that the eagle of Jupiter had not hurt Ganymede, or that the emperor's lion had not injured the imprisoned hare? This wonderful lion, however, was torn in pieces by another beast that broke out from its cage in the arena; but he had the consolation, as Statius says, of being mourned by both the people and the senate, and that the emperor took his loss worse than that of ever so many Egyptian, African, or German beasts. Heliogabalus used sometimes, for a joke, to terrify his guests by bringing his tame lions suddenly into the dining-room. Even tigers were sometimes so far

subdued as to lick their keepers' hands and faces. Leopards were easily reduced to submit to the rein of the charioteer.

Another triumph of this training was the inuring of land-animals to the water. Among the splendid exhibitions to which Titus owed no small amount of his popularity, was the arena under water, where horses, oxen, and other animals were collected, and taught to go through the duties to which they were accustomed on the dry land. The story of oxen being in the habit of carrying women, may probably have suggested the mode in which the abduction of Europa was accomplished. Oxen in general were very tractable; they learned to stand upon their hind-feet, and would allow jongleurs to perform their tricks on their backs, and were even skilled in playing the part of drivers in chariots at full speed.

Tamed beasts frequently served both to raise the splendour of mythological tableaux and ballets, and to enhance the comic displays at masquerades. Carnivals of the same kind were often held at the festivals of the gods. Apuleius describes a procession at a festival of Isis: there was a tame she-bear clothed as a woman, borne on a chair; an ape, in the costume of Ganymede, with a Phrygian cap and saffron-coloured mantle, presented a golden cup; an infirm old man, travelling with a winged ass, parodied Bellerophon with Pegasus. It may be supposed that, in such parodied representations, apes were the best adapted, and the favourites; and several monuments indicate this to have been the case. In these, apes are represented as being trained, sometimes under fear of the whip, at others by caresses; some with the head-gear and castanets of dancers, or in the long robe of the *citharedi* with the lyre, or as flute-blowers, or driving chariots with whip and reins, or as soldiers, &c., are mentioned by historians, and are to be seen in pictures. The most interesting of these is a wall-painting in Pompeii, where the deliverance of Anchises and Aescanias from the burning of Troy by Æneas, is represented by apes. These works, fortunately preserved, prove that the ape-comedy was zealously cultivated in ancient Rome. Also, as domestic animals, trained apes were in great request, especially for the amusement of children: an ape of play has been found in a child's grave, evidently a plaything.

The comedy of the dogs flourished no less than that of the apes. We have the description of a play in which a dog acted the chief part, which was performed with great applause in the presence of the Emperor Vespasian, in the theatre of Marcellus at Rome. The four-footed actor shewed the greatest self-possession, when, in the course of the representation, some drink was given to him which purported to be poison, but which was really only a sleeping-draught. 'After he had swallowed the draught,' says the narrator, 'he began to tremble, to reel, and to become unconscious; at length he stretched himself out, as if dying, lay as really dead, and allowed himself to be pulled and dragged about as the plot of the drama required. But as soon as the signal was given, he began to move gently, as though awaking out of a deep sleep, lifted his head, and looked round him; and while the spectators were expressing their admiration, he went up to the person to whom, according to the fiction of the play, he belonged, and shewed so much delight and fondness by wagging his tail, as to excite universal astonishment.'

The bondoirs of fashionable Roman ladies were, it is well known, furnished with tame birds. Who does not remember the sparrow of Lesbia, which Catullus has made immortal?

How much tame doves were in request may be judged of by the fact, that towards the close of the republic, a celebrated breeder sold a single pair for

400 denarii, or about L.14. Still higher prices were paid for speaking and singing birds; of the latter, the nightingale deservedly fetched the highest price. Pliny says they cost as much as slaves, and even more than armour-bearers in old times.

Music was played near the nightingales that were under training, which they used to answer and imitate. Of the talking birds, the parrot naturally held the highest place. The ancients maintained that the head of this bird was unusually hard; on which account he had to be beaten thereon with an iron rod, when he was under instruction, else he would not feel his chastisement. Next to beating, starving was the best mode of enforcing obedience. It is without doubt not owing to mere chance that speaking-parrots are scarcely ever mentioned by writers and poets of the imperial era without the observation that they had learned to salute the emperor with the 'Ave, Cæsar.' Probably it was dangerous, if a bird, which could speak at all, was not able to bear witness to the loyal disposition of its owner; at any rate, sins of omission of that kind led to accusations and trials at law. Two elegies on the deaths of parrots have come down to us; one by Statius upon the death of his friend Melior's favourite bird, which was so domesticated that it used to hop about at table among his guests, and eat out of their hands. Its cage was made of splendid tortoise-shell, the bars were silver and ivory, and the doors also of silver. The remaining elegy by Ovid is on the parrot of his Corinna, and is a very feeble and servile imitation of Catullus's poem on Lesbia's sparrow.

'Less famous than the parrot,' says Pliny, 'is the magpie, because it does not come from so great a distance: it speaks, however, much more distinctly. These birds get used to the words they are taught, and not only retain them, but become very fond of them, and frequently practise them by themselves. It is a fact that magpies have died in the vain attempt to utter a hard word. If the same word be not often repeated to them, it slips their memory; they then strive to recall it, and exhibit remarkable delight as soon as they hear it again.'

A story of a remarkable magpie is told in Plutarch's treatise on the cleverness of animals. A barber in Rome had a bird which not only imitated human speech, but also the noises of beasts and the tones of instruments, all spontaneously. One day, a great funeral procession happened to pass the barber's shop, and stopped immediately against it, upon which the accompanying trumpeters blew a long tune on their instruments. From this moment the magpie became dumb, and uttered no cry even to make its wants known. The whole neighbourhood became excited, and various surmises were circulated on the occurrence; some said the bird had been robbed of his voice by witchcraft, while the more knowing ascribed the calamity to a sudden deafness produced by the blowing of the trumpets. After a time, however, he recovered his voice, but did not exercise it in his former tricks, but sang the whole trumpet-piece from beginning to end. From this it was evident that his former silence arose from the pains he took to learn the melody.

The Empress Agrippina, who was a great fancier of birds, had a thrush which could imitate the human voice: the first instance of the kind, according to Pliny. Pliny adds, that at the time of his writing, the imperial princes had a starling which could speak Greek and Latin words; nightingales also which had learned the same, added daily to their knowledge, and could even speak good long sentences. These were taught in a separate room, where they heard no other sound than the voice of the trainer, who was constantly repeating the same words to them, and rewarded their proficiency with some favourite delicacy.

It is well known, also, that there were speaking-ravens, as this bird, in consequence of his human speech, had in the remotest antiquity acquired the honour of being regarded as the envoy of the god Apollo. In the time of Tiberius, there was a raven's nest on the temple of Castor, and from this a young raven flew into a neighbouring shoe-shop, the owner of which received him kindly, and taught him to speak. After a time, he used every morning to fly to the forum, to accost and greet Tiberius, and after him Germanicus and Drusus, and then the whole Roman people, after which he would fly back to the shop. This he continued to do for several years, and excited the admiration of all Rome. The owner of a neighbouring shop, through envy, killed the bird, which so roused the fury of the people, that the murderer was obliged to leave his quarters, and was afterwards put to death. The raven was buried with the most solemn pomp. Two Moors carried him on a bier; a flute-player went at the head of the procession; crowns in abundance decorated the body; and thus was he borne to a cemetery in the Appian Way, where he was burned and buried. This took place on the 27th of March A.D. 35. Pliny also knew a Roman knight who possessed a remarkably black crow from Spain which spoke several words very distinctly.

Besides the birds that were trained to speak, but little mention is made of others that distinguished themselves by their docility and cleverness. Pliny mentions only that goldfinches learn to execute with their feet and bill what they were ordered; and that tamed cranes were very amusing, and went through a kind of dance. In the plays of Titus, cranes were exhibited which fought each other.

Fishes in basins used, at the sound of a bell or rattle, to come to the edge to receive food from their owners' hands, a sight very often seen at the mansions of distinguished Romans: it is even maintained that some fishes recognised the names that were given them.

In these accounts, there may no doubt be something due to the score of exaggeration and embellishment, but by far the greater part rests on the evidence of unimpeachable eye-witnesses. If it be further remembered that we have only isolated and chance-preserved communications on the subject, we shall be led to confess that the beast-training of to-day cannot even remotely be compared with that of ancient times.

INGLEBOROUGH WITHIN.

OLD Ingleborough, the Saxon Hill of Fire, is very rightly one of the chief glories of Yorkshire.

Penyghent, Pendle, and Ingleborough,
Are the highest hills the country thorough,

is an ancient proverb of that boastful county; and considering that the Cumberland and Westmoreland mountains, half as high again, are within sight of all the three, it is a very creditable one. *Magna est veritas* is a quotation almost run to death, so true is it, but the thing which is popularly known as 'a whopper,' is sometimes more tremendous still. Ingleborough is, as its inhabitants would say, at the tail-end of the great northern hill-district, and, although not such a fine fellow as his betters, holds his head well above the flat country, like a country-gentleman of consideration who has, at least, married into the peerage. It is naturally divided into 'pastures' by terraces or scars of limestone, which give to the whole hill the appearance of being fortified by a power even greater and more ancient than that of the Roman. He had his camp upon Ingleborough, we may be pretty sure, and dropped his money about

—principally fourpenny-bits of the Constantine period—his brooches, his pottery, and his own bones, all over that neighbourhood, with his accustomed profusion. The Druids were there, of course, giving that artificial ringworm to the crown of the hill, which it was their duty and pleasure to effect upon all waste places. It had a beacon also, which can still be seen, and has often given warning to canny Yorkshire when canny Scotland was about to make a foray. There is a good deal of contention between these neighbours still, but after quite another sort of fashion, and diamond cuts diamond, instead of claymore broadsword. The northerp folks arrive now quietly enough by the London and North-western Railway, and *Bradshaw* gives token of their approach instead of the beacon of old Ingleborough. But there is a grand look-out yet from the place where its ruins lie, two or three thousand feet above yon waste of waters: Lancaster tower and town; the little caravans crossing the perilous sand-roads, which, in a few hours, the sea will again claim for her own; smoke-pennoned steamer and white-sailed ship; curved bays, with little fishing-hamlets; belts of woodland with a glimmering star, vane—and very properly so—of some ivy-mantled village church; the mouths of three fair rivers, running down with many a curve and sweep from swarded uplands; on this side, a sandbank or an island low in the sea, and on that, a group of mountains, the highest which our England has to boast of.

But, after all, our business is with Ingleborough Within. The whole district of Craven—the British *Craigavon*, country of rocks—of which this hill is lord, is honeycombed by innumerable earth-chambers. Ribblesdale, Wenningdale, Wharfedale, and half a score of other dales, named after their respective rivers, which curve so shallowly and broadly around the wooded limestone cliffs, are undermined and tunnelled for miles by the hand of nature, and beneath them flow 'sunless streams,' like *Alph*, the sacred river, none knows whither, and 'measureless to man.' Often as we wander over the shoulders of Ingleborough, we hear voices and gurglings from torrents which never find their way at all to the upper world, and from out one cavernous mouth in the hill *Whernside*, flows a stream which, in flood-time, washes out periodically old silver coins of the reign of *Edward I.*, from who-knows-whose deep-hidden treasury. In *Giggleswick Scars*, whose name unhappily does not convey any idea of their real grandeur, is an ebbing and flowing well, of exceedingly irregular habits, having a flux and reflux, with a difference of from a few inches up to a foot and a half, caused by some wondrous subterranean power, which miserable mathematicians explain by the principle of the double syphon. If you lay your ear to the ground at a certain spot in Ribblesdale, you will hear how the water comes down at *Lowdore* in fairyland, although not so much as a rivulet is to be seen outside of *Robin Hood's Mill*. Sometimes tremendous funnels, of two hundred feet in depth, lead by a very direct route, and one which would take no time at all to traverse, right down upon these mysterious streams, which are lit by them here and there, upon their dark road, as a tunnel by its shafts. Black and deep enough the water seems, as we peer over the edge of the 'pot' to look at it, nor does it make us at all ambitious to imitate that subterranean explorer, *Sinbad*, in trespassing on kelpie ground. *Hellen Pot*, which contains in it an underground water-fall of no less than forty feet, has been descended to the depth of three hundred and thirty feet, where the black river sinks into a quiet rotatory pool, and does not reappear to mortal eye for more than a mile. Some few of these pots have fish in them: large dark trout abound in *Hurtle Pot*, where 'the boggart,' in

rainy weather, is heard to threaten and fret, and are also found in less quantity in the chasm above it, though the upward force of the water is there so strong as to cast up stones of considerable size to the surface, and even on the bank.

There is a village under Ingleborough called *Clapham*, a great deal more picturesque than its metropolitan namesake; and from it the ascent of the hill is generally begun. At the neighbouring railway-station are to be read considerable puffs about his serene highness, and particularly concerning the structure of his internal arrangements, which cannot but be gratifying to any mountain. The tourist is entreated to come early, and to spend a week in visiting Ingleborough and its caves.

A quarter of an hour's walking brings us to the hamlet, with its verdurous ravine and the fall issuing from the artificial lake above it; and half an hour afterwards, we arrive by a beautiful path which winds through larch-plantations, round the mountain's side, at the mouth of the cave. The entrance is wild and imposing, embowered in trees, and overhung with trailing foliage, and commands such a view of the deep ravine beneath it, and of the limestone shoulders of opposite Ingleborough, bare or half draped in green, as would be fit enough to gladden the eye of an anchorite, did any chance to dwell here. When the tallow candles are lit, and the iron gates closed and locked upon us, we begin to wish ourselves outside again; and when we have stumbled over the sixty yards or so of rock-passage, which is the entire length of the old cave, and admired the few gloomy petrifications which gleam about in the dark vault as cheerfully as mouldy coffin-plates, we feel quite certain that we have had enough of caverns. That, at least, was our experience of *Clapham Cave* a score of years ago.

Up to that time, notwithstanding railways, and what is called the march of intellect, and in spite of all the newspapers had written against them, the water-fairies still dwelt under Ingleborough in the beautiful palace they had inhabited ages before the *Hengist Brothers* were a firm, or *Agricola* was a husbandman, or even a child in arms. They knew, because they could hear us talking where their outer wall was thinnest next to the old cave, that foolish mortals paid a shilling apiece for looking at what had once been a cattle-stable of their own; but between it and them a partition had been built up some two or three thousand years before, of 'calcareous concretion' upon our side, and of fretted crystal upon theirs; so that they feared no intrusion. Their manners were similar to those prevailing in European courts. The king spent a great deal of money in racing, and worse; the queen, good old creature, kept bees, and was content with eating bread and honey in her parlour, or, as is more likely in the house-keeper's room, out of the way, for her simple tastes were much reflected upon and ridiculed by her disrespectful children. The young prince had his boon-companions, and loved his rubber at skittles; and the princess, his sister, amused herself with her organ—for she was very high-church—or reclined upon frosted silver cushions, while her maidens (who, poor things, were kept standing all the time half out of the water) regaled her with stories of fabulous merman martyrs, till they brought quite a dryness into her eyes.

The palace itself was of extraordinary extent and splendour; the apartments, though many of them were very lofty, being indeed used in some instances as air-baths, never needed any support for their roofs, but the architect had built up a crystal pillar or two, here and there, for ornament, and in order to swell his bill, which, after all, he had great difficulty in getting settled by the late king (1240 A.M.), who

never paid anybody except in his own I O U's, which were a sort of bank-note without the water-mark.

A statue was, however, erected to him by an admiring public in the Stalactite Gallery, where it is still standing; and as far as we can judge of a statue in the absence of the head and shoulders, a most excellent likeness.

It was in this very gallery that the princess was sitting with her attendants, modelling a little Gothic church out of crystallised sugar, when the catastrophe occurred that drove all the fairy family out of their ancestral halls. The king was in his counting-house—which, to say truth, was little better than a betting-office—counting out the money which he had won at a late spring-meeting; the queen was in her parlour, partaking of her usual refreshment; the prince was in the skittle-alley, knocking the pins about; when—'by the holy St Hookem,' exclaimed the princess, who was caught by the jaws, 'if the air isn't coming in, and the water running out!' The princess was not often right when she was positive, but this time she spoke like a book. A servant of the gentleman who owns the ground had been pecking in the old cave at the 'calcareous concretion' with a pickaxe, until he had pecked a hole in it!

Into what dismay and terror the royal household was thrown by this catastrophe, we can imagine, from the awful sounds which were heard from within at the time of the accident, but we shall not describe. We would rather be accurate than ever so poetical, and we confine ourselves only to those matters of which we have a certain knowledge. We ourselves did not enter the palace until long after its inhabitants had left it, but not a thing has been removed from the place where it was found at the period of their flight. Immediately upon setting foot upon the fairy side of the old cave, we find ourselves in the Stalactite Gallery. There lie the frosted silver cushions, with their pillows and footstools of the same material, and having—as it seems to us—the very impression which the princess must have left upon them when she swam away with her maidens through what little water remained. There stands the glittering little Gothic structure, only wanting the porch to complete it, and with a steeple of delicate spar which needs no peal of bells, inasmuch as itself returns, to the slightest touch, the sweetest bell-music imaginable. On the left hand, a little further on, are proofs of the housewifely care of the good queen, in fleeces of silvery wool and the ebony spoke of a spinning-wheel; a turkey's head is all that remains of her well-ordered larder; but her favourite bee-hive of frosted silver lies on its stalactite shelf, and her dark rich honey-combs are ranged beneath it. Beyond is the little counting-house, with a watery abyss close by, into which the sporting monarch leapt upon the very first alarm, leaving in his haste his jockey-cap, also of frosted silver, upon the brink of it, where it now stands. A passage leads off, through water, to the left, as yet untrodden by mortal foot, up which the princess must have fled, for we can swear to her crystal slipper dropped at the entrance. Presently, we come to a water-fall, up which, when they were young, many a generation of the water-fairy family must have loved to leap, with that torso of the old bankrupt king beside it of which we have already spoken. Here, too, are crystal pillars separated in the centre, but still standing, the one half rising up from the marble floor to meet the other, depending from the vaulted ceiling—stalagmite and stalactite—which proves what little real necessity there was for their being erected. Besides these, crystallised air-plants—as they seem—hang everywhere from the roof, to which they are attached by a number of delicate silver icicles, which, when lighted up, have the prettiest and most magical effect.

And now we mortals have to stoop painfully for some distance along a depressed passage, where the original inhabitants had, doubtless, no sort of difficulty in gliding, and by the side of the stream which still traverses the palace from end to end, at this time shallow enough, except in particular spots, and many feet below the marble water-line which marks upon the walls what its depth has been wont to be; a solemn, melancholy sound it ever makes, 'low on the sand, and loud on the stone,' as though it bewailed its banished indwellers.

At last, and two hundred and sixty feet from the old cave, we arrive at the Gothic hall, of enormous length, and with groined and lofty ceiling. At one end of it is the splendid throne of the queen-mother, glittering with diamonds, with an unexplored vista on the right, up which, it is probable, she escaped with her household goods; in the right centre is the magnificent organ, formed of thin plates of silver spar, whose notes, awakened even by a mortal hand, are still most ravishing; in the left, and opposite—where he built it, perhaps, for the purpose of annoying his sister at her anthems—is the prince's skittle-alley, dry, and with three of the pins still standing. On both sides of the hall are various chambers filled with gleaming spar, transparent, and tapering perpendicularly from the summit, or branching into shrubberies of coral-work. From above depend numbers of sparkling chandeliers of stalactite, which are multiplied by mirrors of limpid water ingeniously placed beneath them; and below, there is a noiseless carpet of silver sand. A noble archway leads hence into the Alhambra Gallery, which, from the circumstance of it having been so long unpaid for, joined to that of its similarity to the Moorish court built by our own architect at Sydenham, bore the name of Owning Jones. The lofty roof, which is beautifully tessellated with intersecting lines of white marble, after extending, without a single pillar to support it, for a very great distance, suddenly sinks to a mere vaulted passage, between two and three feet in height, along which mortals have to crawl upon wooden clogs provided for that purpose. This is called the Cellar Gallery; but there is not a vestige of bin or bottle left to account for the designation; and this is the more to be regretted, as the travelling here upon all-fours is so laborious as to demand some kind of stimulant. When we have almost made up our minds to become semicircular for the rest of our lives, the roof rises unexpectedly to an enormous altitude, and a man would be enabled to straighten himself though he should stand thirty feet in his shoes. We are now in what was evidently the great chamber of audience, and it is the last in the palace to which we shall be able to penetrate. A grand, stern justice-hall it is, surrounded with objects of awe rather than of beauty. Upon the huge sombre walls are written mysterious Runic characters; and from the roof hang dusky chandeliers of stalactite, which shed a doubtful light over the scene. We are now two thousand horizontal feet from the entrance of the palace, and half as many feet perpendicular from the upper air! It is indeed Ingleborough Within, and yet we have probably not seen one-tenth of the wonders of this fairy home. A low archway leads from the hall into water, and darkness, and space, along which adventurous mortals have swum and struggled for several hundred yards further, and still have been far from finding the places whither the banished race have betaken themselves. That they are within there, somewhere, is all we must be content to know.

And now we must return along the splendid succession of hall and corridor, into daylight. The sun gleams brightly enough upon herb and leaf, upon rock and downland, but it meets with no

such glittering response as our homely candles have been evoking from stalactite and spar. This poor dull earth of ours cannot stand comparison with fairyland! Ah, who to see the rugged face of that bluff old Yorkshire mountain, would dream of the rich heart-chambers that lie in Ingleborough Within?

A MIGRATORY ROSE.

STRANGE as the heading of this paper may appear to the reader, the flower is nevertheless an entity—a thing that exists, and may be handled; a plant almost as regular as the swallow in its flittings to and fro; one that travels many miles annually; and, what is more, a fashionable one—resorting to the sea-side during the hottest season, to indulge in a swim among the cool billows of the Mediterranean. The name of this remarkable vegetable phenomenon is *Anastatica hierochuntica* among the botanists; the *Rose of Jericho* with the unlearned.

Very many superstitions are connected with this extraordinary plant in the minds of Bedouins and other Arab tribes. The ancients attributed miraculous virtues to the Rose of Jericho. Dispensing with the notions of both, however, there remains to us quite a sufficient charm about this apparently insignificant shrub, which seldom attains six inches in height, to apologise for introducing the subject to our readers.

To behold this little rose, it is not necessary to tell you 'to go to Jericho;' no such uncomplimentary journey is required. In the arid wastes of Egypt, by the borders of the Gaza desert, in Arabia's wilderness of sands, on the roofs of houses and among rubbish in Syria, abundant specimens are to be met with. But, like many other things of insignificant exterior, few pause to look upon or handle this wayside shrub, which nevertheless carries with it a lesson and a moral.

By the laws of germination, there are, we are told, these three things necessary for a plant—humidity, heat, and oxygenised air. The first of them is indispensable, inasmuch as without it the grain or seed would not swell, and without swelling, could not burst its shell or skin; and heat, in union with water, brings various gases to young plants—especially oxygen—which are necessary for its existence.

With these facts before us, and a knowledge that rain seldom falls in most places where the Rose of Jericho thrives, how are we to account for the extraordinary circumstance of this plant being periodically abundant and flowering at precisely the same season year after year, when, by the acknowledged laws of germination, there has been that succour wanting which is indispensable to propagate vegetation? Now appears the most remarkable and most direct interposition of nature for her offspring—an interposition little short of miraculous, and, indeed, apparently so fabulous as to be unworthy of record. But the fact has been established beyond doubt that, for its own purposes, this little plant performs annual journeys over a large extent of country, and into the ocean, whence, at a stated period, it, or rather its offspring, returns to the original haunts, takes root, thrives, and blossoms.

In the height of spring, when nature casts her brilliant vesture, set with flowers and flowerets of a hundred varied hues, over the fertile valleys and hills of Syria and part of Palestine; when every breeze is laden with rich incense from orange groves or honeysuckle dells, then unheeded, amidst the rich profusion of vegetation, or isolated amid the desert sands, blossoms the tiny Rose of Jericho. On house-tops, where the sun's fierce rays rend crevices—on dust-heaps, where half-starved wretched curs prowl and dig for food or a resting-place—where

multitudes throng the streets, and where neither foot of man nor beast has ever left imprint on the broiling sand, there sprouts the wonderful *Anastatica hierochuntica*. When summer has fairly set in, and flowering shrubs have ceased to blossom—about the same season of the year that Mr Bull and his family are meditating a month's trip to the sea-side for fresh breezes and sea-bathing, when the whole house is turned topsy-turvy in the pleasurable excitement of packing for the month's holiday—the Rose of Jericho begins to shew symptoms of a migratory disposition also. How astonished Mr Brown would be if his gardener rushed in with the startling intelligence that some favourite rose-bush or other plant in the garden had evinced sudden signs of restlessness, and, after a few preliminary efforts, had quietly taken itself off for the season!

Hadji Ismail, the Bedouin camel-driver, who witnesses this phenomenon annually, encountering scores of migratory *Anastatica hierochuntica*, simply pauses to stroke his prolific beard and fresh charge his pipe, while he pours into the eager ears of some untravelled novice legends about this wonderful rose—legends replete with fairy romance, in which almost invariably a certain unmentionable gentleman comes in for a volley of invectives, as being the instigator of this mysterious freak of nature.

The first symptom the Rose of Jericho gives of an approaching tour is the shedding of all her leaves; the branches then collapse, apparently wither, and roll themselves firmly into the shape of a ball. Like the fairies that travelled in nut-shells, this plant ensconces itself in its own framework of a convenient shape, size, and weight for undertaking the necessary journey. Not long has the flower assumed this shape when strong land-breezes sweep over the land, blowing hot and fiercely towards the ocean. In their onward course, these land-winds uproot and carry with them the bulbs or framework of our rose; and, once uprooted, these are tossed and blown over many and many a dreary mile of desert sand, till they are finally whirled up into the air, and swept over the coast into the ocean.

Soon after the little plant comes into contact with the water, it unpacks again, unfolds itself, expands its branches, and expels its seeds from the seed-vessels. Then, I presume, the mother-plant finishes her career, or is stranded a wreck upon the sea-beach. However this may be, it seems evident that the seeds, after having been thoroughly saturated with water, are brought back by the waves, and cast high and dry upon the beach. When the westerly winds set in with violence from the sea, they carry these seeds back with them, scattering them far and wide over the desert, and among inhabited lands; and so surely as the spring-time comes round will the desolate borders of the desert be enlivened by the tiny blossoms of the Rose of Jericho.

OCEOLA:

A ROMANCE.

CHAPTER LXXVI.—FALSE ALARM.

THE significant phrase at once put a period to my reflections. Believing the savages to be in sight, I spurred towards the front. Suddenly and simultaneously the horsemen had drawn bridle and halted. A few who had been straggling from the path now hurried up and ranged themselves closer to the main body, as if for protection. Others who had been riding carelessly in the advance were seen galloping back. It was from these last the cry of 'Indyans' had come, and several of them still continued to repeat it.

'Indyans?' cried Hickman, interrogatively, and with an air of incredulity; 'whar did ye see 'em?'

'Yonder,' responded one of the retreating horsemen—'in yon clump o' live-oaks. It's full o' them.'

'I'll be dog-goned if I b'lieve it,' rejoined the old hunter with a contemptuous toss of the head. 'I'll lay a plug o' Jeemes's river, it war stumps you seed! Ind'yuns don't shew 'emselves in timmer like this hyar—specially to sech verdunts as you. Y'ull hear 'em afore you see 'em, I kalklate.'

'But we heard them,' replied one; 'we heard them calling out to one another.'

'Bah!' exclaimed the hunter; 'y'ull hear 'em diff'rent from that, I guess, when you gits near enough. It'll be the crackin' o' thar rifles y'ull hear first. Dog-gone the Ind'yuns's thar. 'Twar a coon or a catbird ye've heern screamin'. I know'd ye'd make a scamper the fust thing as flittered afore ye.'

'Stay whar yez are now,' continued he, in a tone of authority—'jest stay whar yez are a bit.'

So saying, he slipped down from his saddle, and commenced hitching his bridle to a branch.

'Come, Jim Weatherford,' he added, addressing himself to his hunter-comrade, 'you come along—we'll see whether it be Ind'yuns or stumps thet's gin these fellers sech a dog-goned scare.'

Weatherford, anticipating the request, had already dropped to the ground; and the two, having secured their horses, rifle in hand, slunk silently off into the bushes.

The rest of the party, now gathered closely together, sat still in their saddles to await the result.

There was but slight trial of our patience; for the two pioneers were scarcely out of sight, when we heard their voices ringing together in loud peals of laughter.

This encouraged us to advance. Where there was so much merriment, there could be but little danger; and without waiting for the return of the scouts, we rode forward, directing our course by their continued cackinnations.

An opening brought both of them in view. Weatherford was gazing downward, as if examining some tracks; while Hickman, who saw us coming up, stood with extended arm pointing to some straggling woods that lay beyond.

We cast our eyes in the direction indicated: we observed a number of half-wild horned cattle, that, startled by the trampling of our troop, were scampering off through the woods.

'Now!' cried the hunter triumphantly, 'thar's yur Ind'yuns! Ain't they a savage consarn? Ha, ha, ha!'

Every one joined in the laugh, except those who had given the false alarm.

'I know'd thar war no Ind'yuns,' continued the alligator-hunter, 'that ain't the way they'll make thar appearance. Y'ull hear 'em afore you sees 'em: an' jest one word o' device to yos greenhorns, as don't know a red Ind'yun from a red cow: let someb'dy, as diz know, go in the devance, an' the rest o' ye keep well together; or I'll stake high on't thet some o' yez'll sleep the night 'thout har on yur heads.'

All acknowledged that Hickman's advice was sage and sound. The hint was taken; and leaving the two hunters henceforth to lead the pursuit, the rest drew more closely together, and followed them along the trail.

It was evident the marauders could not be far in advance of us; this we knew from the hour at which they had been seen retreating from the settlements. After my arrival on the plantation, no time had been lost—only ten minutes spent in preparations—and altogether there was scarcely an hour's difference between the times of our starting. The fresh trail confirmed the fact—they could not be a league ahead of us, unless they had ridden faster than we; but that would have been impossible, encum-

bered as they were with their black captives, whose large tracks—here and there distinctly perceptible—shewed that they were marching afoot. Of course their captors would be detained in getting these forward; and in this lay chances of overtaking them.

There were but few who feared for the result, should we be able to come up with the enemy. The white men were full of wrath and revenge; and this precluded all thoughts of fear. Besides, we could tell by their trail that the Indians scarcely outnumbered us. Not above fifty appeared to constitute the band. No doubt they were able warriors, and our equals man to man; but those who had volunteered to assist me were also of the 'true grit'—the best men of the settlement for such a purpose. No one talked of going back; all declared their readiness to follow the murderers even to the heart of the Indian territory, even into the 'cove' itself.

The devotion of these men cheered me; and I rode forward with lighter heart—lighter with the prospect of vengeance, which I believed to be near.

CHAPTER LXXVII.

A 'SPLIT TRAIL.'

It was not so near as we anticipated. Pressing forward as fast as our guides could lead us, we followed the trail for ten miles. We had hoped to find revenge at half the distance.

The Indians either knew that we were after them, or, with their wonted craft, were marching rapidly, under suspicion of pursuit. After the committal of such horrid atrocities, it was natural for them to suppose they should be pursued.

Evidently they were progressing as fast as we—though not faster.

Though the sun was broiling hot, sap still oozed from the boughs they had accidentally broken—the mud turned up by their horses' hoofs, as the guides expressed it, had not yet 'crusted over,' and the crushed herbage was wet with its own sap, and still procumbent.

'Jest half a hour ahead,' remarked old Hickman, as he rose erect after examining the tracks for the twentieth time—'jest half a hour—dog darn 'em! I never know'd red-skins to travel so fast afore. Thar a streakin' it like a gang o' scared bucks, an' jest 'bout now thar clouts are in a putty consid'able sweat, an' some o' thar duds is stannin' at an angle o' forty-five, I reckon.'

A peal of laughter was the reply to this sally of the guide.

'Not so loud, fellers—not so loud,' said he, interrupting the laughter by an earnest wave of his hand. 'By Jeroozalim, th'ull hear ye; an' if they do, th'ull be some o' us 'thout scalps afore sundown. For your lives, keep still as mice—not a word, or we'll be heern: thar as sharp-eared as thar own wolf-dogs; an' darn me if I b'lieve thar more'n half a mile ahead o' us.'

The guide once more bent himself over the trail; and after a short reconnaissance of the tracks, repeated his last words with more emphasis.

'No, by —! not more'n half a mile. Hush, boys; keep as quiet as 'possums, an' I promise ye we'll tree the varmints in less'n a hour. Hush!'

Obedient to the injunctions, we rode forward, as silently as it was possible for us to proceed on horse-back.

We strove to guide our horses along the softer borders of the path, to prevent the thumping of their hoofs. No one spoke above a whisper; and even then there was but little conversation, as each was earnestly gazing forward, expecting every instant to see the bronzed savages moving before us.

In this way we proceeded for another half mile, without seeing aught of the enemy except their tracks.

A new object, however, now came in view—the clear sky shining through the trunks of the trees. We were all woodsmen enough to know that this indicated an 'opening' in the forest.

Most of my companions expressed pleasure at the sight. We had now been riding a long way through the sombre woods, our path often obstructed by lianes and fallen logs, so that a slow pace had been unavoidable. They believed that in the open ground we should move faster, and have a better chance of sighting the pursued.

Some of the older hands, and especially the two guides, were affected differently by the new appearance. Hickman at once gave expression to his chagrin.

'Cuss the clarin,' he exclaimed; 'it are a savanner, an' a big un too. Dog-gone the thing, it'll spoil all.'

'How?' I inquired.

'Ye see, Geordy, if thar a'ready acrosst it, they'll leave one on tother side to watch—they'll be sartin to do that, whether they know we're arter 'em or not. Wal, what follers? We kin no more cross 'ithout bein' seen, than a carryvan o' kaymels. An' what follers that? Once they've sighted us, in coorse they'll know how to git out o' our way. Judgin' from the time we've been a travellin'—hey! it's durned near sundown!—I reckon we must be clost to thar big swamp. If they spy us a comin' arter, they'll make strait custrut for thar, and then I know what they'll do.'

'What?'

'They'll scatter thar; an' ef they do, we mought as well go sarchin' for birds' nests in snow-time.'

'What should we do?'

'It are best for the hul o' ye to stop here a bit. Me an' Jim Weatherford'll steal forrad to the edge o' the timmer, an' see if they've got acrosst the savanner yet. Ef they are, then we must make roun' it the best way we kin, an' take up thar trail on the tother side. Thar's no other chance. If we're seen crosstin' the open groun', we may jest as well turn tail to 'em, an' take the back-track home again.'

To the counsels of the alligator-hunter there was no dissenting voice: all acknowledged their wisdom, and he was left to carry out his design without opposition.

He and his companion, once more dismounted from their horses; and, leaving us halted among the trees, advanced stealthily towards the edge of the opening.

It was a considerable time before they came back; and the other men were growing impatient. Many believed we were only losing time by this tardy reconnaissance, and the Indians would be getting further away. Some advised that the pursuit should be continued at once, and that seen or not, we ought to ride directly along the trail.

However consonant with my own feelings—burning as I was for a conflict with the hated foe—I knew it would not be a prudent course to pursue. The guides were right.

These returned at length, and delivered their report. There was a savanna, and the Indians had crossed it. They had got into the timber on its opposite side, and neither man nor horse was to be seen. They could scarcely have been out of sight before the guides arrived upon its nearer edge, and Hickman averred he had seen the tail of a horse disappearing among the bushes.

During their absence, the cunning trackers had learned more. From the sign, they had gathered another important fact—that there was no longer a trail for us to follow!

On entering the savanna, the Indians had scattered

—the routes they had taken across the grassy meadow were as numerous as their horses. As the hunters worded it, the trail 'war split up into fifty pieces.' They had ascertained this by crawling out among the long grass, and noting the tracks.

One in particular had occupied their attention: it was not made by the hoof-prints of horses, though some of these appeared alongside it, but by the feet of men. They were naked feet; and a superficial observer might have fancied that but one pair of them had passed over the ground. The skilled trackers, however, knew this to be a *ruse*. The prints were large, and mis-shapen, and too deeply indented in the soil to have been produced by a single individual. The long heel, and scarcely concave instep—the huge balls, and broad prints of the toes, were all signs that the hunters easily understood. They knew that it was the trail of the negro captives, who, doubtless, had proceeded thus by the direction of their guards.

This unexpected ruse on the part of the retreating savages created chagrin as well as astonishment. For the moment, all felt outwitted; we believed that the enemy was lost; we should be cheated of our revenge.

Some men talked of the idleness of carrying the pursuit further; a few counselled us to go back; and it became necessary to appeal to their hatred for the savage foe—with most of them a hereditary passion—once more to invoke their vengeance.

At this crisis, old Hickman cheered the men with fresh hope. I was glad to hear him speak.

'We can't get at 'em to-night, boys,' said he, after much talk had been spent; 'we dacent a cross over this hyar clarin' by daylight, an' it's too big to git roun' it. It 'ud take a twenty-mile ride to circumvent the durned thing. Ne'er a mind! Let us halt hyar till the dark comes on. Then we kin steal across; an' if me an' Jim Weatherford don't scare up thar trail on the tother side, then this child never ate allygator. I know they'll come thegither agin, an' we'll be like enough to find the durned varmint camped somewhar in a clump. Not seen' us arter 'em any more, they'll be feelin' as safe as a bar in a bee-tree—an' that's jest the time to take 'em.'

All appeared to agree to the proposal of the hunter. It was adopted as a plan; and, dismounting from our jaded horses, we awaited the setting of the sun.

CHAPTER LXXVIII.

CROSSING THE SAVANNA.

I now suffered the very acme of misery. While riding in hot haste along the trail, there was an excitement, almost continuous, that precluded the possibility of intense reflection, and kept my mind from dwelling too minutely upon the calamity that had befallen me. The prospect of retribution, aye appearing near at hand—at every step nearer—all but cancelled my emotions of grief; and motion itself—knowing it to be forward, and towards the object of vengeance—had a certain effect in soothing my troubled soul.

Now that the pursuit was suspended, and I was free to reflect on the events of the morning, my soul was plunged into the deepest misery. My fancy distressed me with dire images. Before me appeared the corpse of my murdered mother—her arms outstretched, waving me on to vengeance. My sister, too, wan, tearful, dishevelled!

No wonder that, with painful impatience, I awaited the going down of the sun; I thought I had never seen that grand orb sink so slowly. The delay tortured me almost to distraction.

The sun's disc was blood-red, from a thick haze that hung over the woods. The heavens appeared lowering and angry; they had the hue of my own spirit.

At length there came twilight. Short it was—as is usual in southern latitudes—though, on that eve, to me it appeared long and tardy in passing away.

Darkness followed; and once more springing to our saddles, I found relief in motion.

Emerging from the timber, we rode out upon the open savanna. The two hunters conducted us across in a direct line. There was no attempt made to follow any of the numerous trails. In the darkness, it would have been impossible; but even had there been light enough to lift them, the guides would have pursued a different course. Hickman's conjecture was, that, on reaching the opposite side, the marauding party would come together again at some rendezvous previously agreed upon. The trail of any one, therefore, would be sufficient for our purpose; and, in all probability, would conduct us to a camp. Our only aim, then, was to get across the savanna unobserved, and this the darkness might enable us to accomplish.

Silently, as spectres, we marched over the open meadow. We rode with extreme slowness, lest the hoof-strokes should be heard. Our tired steeds needed no taming down. The ground was favourable—a surface of soft grassy turf, over which our animals glided with noiseless tread. Our only fears were that they should scent the horses of the Indians, and betray us by their neighing.

Happily, our fears proved groundless; and, after half-an-hour's silent marching, we reached the other side of the savanna, and drew up under the shadowy trees.

It was scarcely possible we could have been observed. If the Indians had left spies behind them, the darkness would have concealed us from their view. We had made no noise by which our approach could have been discovered, unless their sentinels had been placed at the very point where we re-entered the woods. We saw no signs of any, and we conjectured that none of the band had lingered behind.

We congratulated one another in whispers; and in like manner deliberated on our future plan of proceeding.

We were still in our saddles, with the intention to proceed further. We should have dismounted upon the spot, and waited for the light of morning to enable us to take up the trail, but circumstances forbade this: our horses were suffering with thirst, and their riders were no better off. We had met with no water since before noon, and a few hours under the burning skies of Florida are sufficient to render thirst intolerable. Whole days in a colder climate would scarcely have an equal effect.

Both horse and man suffered acutely—we could neither sleep nor rest without relief: water must be reached before a halt could be made.

We felt keen hunger as well, for scarcely any provision had been made for the long march; but the pangs of this appetite were easier to be endured. Water would satisfy us for the night, and we resolved to ride forward in search of it.

In this dilemma, the experience of our two guides promised relief. They had once made a hunting-excursion to the savanna we had crossed. It was in the times when the tribes were friendly, and white men were permitted to pass freely through the reserve. They remembered a pond, at which, upon that occasion, they had made their temporary encampment. They believed it was not far distant from the spot where we had halted. It might be difficult to find it in the darkness; but to suffer or search for it were our only alternatives.

The latter of course was adopted; and once more allowing Hickman and Weatherford to pioneer the way, the rest of us rode silently after.

We moved in single file, each horse guided by the one that immediately preceded him: in the darkness,

no other mode of march could be adopted. Our party was thus strung out into a long line, here and there curving with the sinuosities of the path, and gliding like some monstrous serpent among the trees.

CHAPTER LXXIX.

GROPING AMONG THE TIMBER.

At intervals the guides were at fault; and then the whole line was forced to halt and remain motionless.

Several times both Hickman and Weatherford were puzzled as to the direction they should take: they had lost the points of the compass, and were bewildered.

Had there been light, they could have recovered this knowledge by observing the bark of the trees—a craft well known to the backwoods hunter—but it was too dark to make such a minute observation. Even amidst the darkness, Hickman alleged he could tell north and south by the 'feel' of the bark; and for this purpose I observed that he was groping against the trunks. I noticed that he passed from one to another, as if the better to confirm his observations.

After carrying on these singular manœuvres for a period of several minutes, he turned to his comrade with an exclamation that betokened surprise.

'Dog-gone my cats, Jim,' said he, speaking in an under-tone, 'these woods are altered since you an' I wur hyar: what the ole scratch kin be the matter wi' 'em? The bark's all peeled off, an' thar as dry as punk.'

'I was thinkin' they had a kewrious look,' replied the other; 'but I s'posed it war the darkness o' the night.'

'Ne'er a bit of it: the trees is altered someways, since we war hyar afore. They are broom-pines—that I recollects well enough. Let's git a bunch o' the leaves, an' see how they looks.'

Saying this, he reached his hand upward, and plucked one of the long fascicles that drooped overhead.

'Ugh!' continued he, crushing the needles between his fingers, 'I see how it are now: the durnationed worms has been at 'em—the trees are dead.'

'D' yer think thar all dead?' he inquired after a pause, and then advancing a little, he proceeded to examine others.

'Dead as durnation—every tree o' 'em. Wal, we must go by guess-work now; thar's no help for it, boys. Ole Hick kin guide you no furrer. I'm dead beat, an' know no more 'bout the direkshun o' thar ere pond than the greenest greenhorn among ye.'

This acknowledgment produced no very pleasant effect. Thirst was torturing all those who heard it. Hitherto trusting that the skill of the hunters would enable us to find water, we had sustained it with a degree of patience. It was now felt more acutely than ever.

'Stay,' said Hickman, after a few moments had elapsed: 'all's not lost that's in danger. If I ain't able to guide you to the pond, I reckon I've got a critter as kin. Kin you, ole hoss?' he continued, addressing himself to the animal he bestrode, a wiry old jade, that Hickman had long been master of—'kin you find the water? Gee up! ole beeswax, an' let's see if you kin.'

Giving his 'critter' a kick in the ribs, and at the same time full freedom of the bridle, Hickman once more started forward among the trees. We all followed as before, building fresh hopes upon the instincts of the dumb brute.

We had not proceeded far when it became known that the horse had got scent of the water. His owner alleged that he 'smelt' it, and the latter knew this as well as if it had been his dogs taking up the trail of a deer.

The horse exhibited signs of such an intelligence. His muzzle was protruded forward, and now and then he was heard 'sniffing' the air; in addition to this, he walked in a direct line, as if making for some desired object.

The news produced a cheering effect, and we were advancing in better spirits, when all at once Hickman drew up and halted the line.

I rode forward to him to ascertain the cause. I found him silent, and apparently reflective.

'Why have you stopped?' I inquired.

'You must all o' ye stop here a bit.'

'Why must we?' demanded several, who had pressed alongside.

'Taint safe for us to go forrad this way. I've got a idea that them varmints is by the pond. They've camped thar for sartin—it's the only water thar is about hyar; an' it's devilitch like that thar they've come thegither an' camped. If that be the case, an' we ride forrad in this fashion, they'll hear us a-comin', an' be off agin into the bushes, whar we'll see no more o' 'em. Ain't that like enough, fellers?'

The interrogatory was answered in the affirmative.

'Wal, then,' continued the guide, 'better for yez all stay hyar, while me an' Jim Weatherford goes forrad to see if the Indyans is thar. We kin find the pond now. I know whar it lies by the direksun the boss war takin. It ain't fur off. If the redskins ain't thar, we'll soon be back, an' then yez kin come on to it.'

This prudent course was willingly agreed to; and the two hunters once more dismounted, and stole forward afoot. They made no objection to my going along with them; my misfortunes gave me a claim to be their leader; and, leaving my bridle in the hand of one of my companions, I accompanied the guides upon their errand.

We walked with noiseless tread. The ground was thickly covered with the long needles of the pine, forming a soft bed, upon which the footstep made no sound. There was little or no underwood, and this enabled us to advance with rapidity. In ten minutes we had separated far from our party.

Our only care was about keeping the right direction. This we had almost lost—or believed so—when, to our astonishment, we beheld a light shining through the trees. It was the gleam of a fire that appeared to be blazing freely.

Hickman at once pronounced it the camp-fire of the Indians.

At first, we thought of returning and bringing on our party; but upon reflection, it was determined to approach nearer the fire, and make certain whether it was the enemy's camp.

We walked no longer in erect attitudes, but crawling on hands and knees. Wherever the glare penetrated the woods, we kept under the shadow of the tree-trunks. The fire burned in the midst of an opening. The hunters remembered that the pond was so placed: but we now saw the sheen of water, and knew it must be the same.

We drew nearer and nearer, until it was not safe to advance further.

We had arrived at the edge of the timber that surrounded the opening; we could see the whole surface of the open ground: there were horses picketed over it, and dark forms recumbent under the fire-light. They were murderers asleep.

Close to the fire a man was seated upon a saddle; he appeared to be awake, though his head was drooped to the level of his knees. The blaze was shining upon his face; and both his features and complexion might have been noted, but for the interposition of paint and plumes. The face appeared of a crimson red, and three black ostrich feathers fell straggling over his temples till their tips almost touched his

cheeks. These plumed symbols produced a painful recognition; I knew that it was the head-dress of Ogeola.

I looked further. Several groups were beyond; in fact, the whole open space was crowded with prostrate forms.

There was one, however, that soon occupied my whole attention. It was a group of three or four individuals, seated or reclining along the grass. They were in shade, and from our position, their features could not be recognised; but their white dresses, and the outlines of their forms—soft, even in the obscurity of the shadow—told that they were females. Two of them were side by side, a little apart from the rest; one appeared to be supporting the other, whose head rested in her lap.

With emotions fearfully vivid, I gazed on these two forms; I had no doubt they were my sister and Viola.

THE MONTH:

SCIENCE AND ARTS.

THE most lively floating topics of late are: the preparations for laying down the Atlantic telegraph cable—the fitting up of the *Leviathan*—the new arrangements, and the Technological Museum at the Crystal Palace—the opening of the Royal Academy Exhibition with an admirable collection of paintings—the underground railway—the London drainage, and Thames embankment question—the recasting of Big Ben, and the noble aspect of the Parliament House, now that the towers are stripped of their scaffolds—Professor Owen's lectures on paleontology at the School of Mines—the soirées given at Burlington House, by Lord Wrottesley, president of the Royal Society, and Mr Bell, president of the Linnean Society—and the fifteen candidates selected for election into the Royal Society, among whom are David Livingstone, Harvey the psychologist, Haughton the geologist of Dublin, H. D. Rogers of Boston, now professor of natural history at Glasgow, Waugh, chief of the trigonometrical survey of India, and discoverer of Mount Everest, the highest peak of the Himalayas, and others of good repute. Moreover, people have not yet left off talking about Buckle's *History of Civilisation*, a book of 800 pages, which comprise a part only of the introduction. What will the history itself number? Most readers consider the book to be like the author's lecture *On Women* at the Royal Institution: brilliant, but fallacious. Mr Buckle, nevertheless, is perhaps the most remarkable person now rising in the literary hemisphere. He is described to us as a young man of fortune, who, up to eighteen, received scarcely any education—has never been at any school or college—but has nevertheless studied profoundly, and made wonderful acquirements. He lives quietly with his mother in London, and may be said to spend his days and nights amongst books, of which he possesses a vast store.—And students are congratulating one another, and Mr Panizzi, on the success of the new reading-room at the British Museum, as proved by the fact, that it was visited by 94,370 readers in 1857; that is, including the visits to the old room from January to May, the new room not having been opened till the latter month. This is a triumph, and Londoners may well be proud of a room which has not its equal in the world. The number of readers in 1856 was 53,422.

As regards the telegraph, there appears now to be a better chance of success than could by any possibility have been expected last year, considering the hurried way in which the preparations were made. Great schemers too often forget that time shews but little respect to the things he has not had a pretty good share in the formation of. In the present

instance, the cable has been coiled on board the *Agamemnon* and *Niagara*, with all needful carefulness; and an almost self-acting paying-out machine or break has been constructed, which is to obviate all the shocks and plunges a ship encounters on a rolling sea. Mr Appold has applied to this break the principle of his crank, so much detested by prisoners condemned to hard labour, as much for its utter unprofitableness, as for its distressing monotony. Henceforth, the unlucky wind-grinders will have the satisfaction of remembering that for once the crank has done noble service. The two vessels are to steam away to the centre of the Atlantic, where the two lengths of cable will be united, and then *Agamemnon* will make the best of her way to Newfoundland, and *Niagara* to Valentin Bay, and each thus having the shortest possible voyage, we may hope that the grand experiment will be crowned with the success it so eminently deserves. The interest it has excited may be judged of from the fact that the institution of Civil Engineers spent four evenings of their ordinary meetings in a discussion as to the best method of sinking the cable to the bottom of the sea, and of preserving it there. It was generally thought that a coat of concrete would form round the cable, and give sufficient protection.

The Crystal Palace, besides certain desirable improvements in the interior arrangements, has now, in the second gallery of the great transept, an excellent collection of natural products and manufactures, forming an instructive technological museum. It has been arranged and classified by Dr Price; and now, with this and the museums at Kensington and the British Museum, it will be the Londoners' own fault if they become not well informed on common things, and uncommon things too.

As regards the metropolitan drainage-question, a new report has been drawn up, shewing that the former estimated cost may be reduced in amount: it recommends that the outfalls should be placed on each bank of the Thames between Woolwich and Erith; and asserts—what has long been known by those best acquainted with the subject—that the statements so often made as to the noxious influence of the Thames is an exaggeration. A tidal river must necessarily be muddy; the water in its recurrent flow produces no ill effects; it is the mud-banks only which taint the air. Hence, by carrying the outfalls down to the locality proposed, and by embanking the stream in its passage through the metropolis, the deposition of mud will be prevented, and the bottom will never be left dry at low-water. The most harmful condition of river-water is when mixed with seawater, as near the mouth. The report insists upon the embankments, not only for the improvement of the channel, but also for the architectural embellishment of the city, and the recreation of the inhabitants. And are not open spaces for recreation indispensable in a city where, as in the week ending March 13, a child is born every five minutes? There is to be a new park of forty acres in the neighbourhood of the Kensington Museum; why not lay out Smithfield as playground for the benefit of those who do not live at Kensington? Play favours physical development; hence London and Londoners would alike be gainers.

Papers have been read and discussed before the Society of Arts, on the progress of the electric telegraph—on iron—and the progress and present state of British mining; the last no unimportant subject, seeing that our metalliferous products are valued at £35,000,000 a year. One of the results of the war with Russia was a marked improvement in the manufacture of iron, and this has suggested the way for further improvements. Bessemer's process is still being experimented on, with a view to perfection; and there is another kind of interest attaching to

mining subjects: a plan has been laid before the Scottish Society of Arts by Mr Robert Aytoun, for working coal-mines in a way that renders explosions impossible; and he suggests that in mines worked on the present system, 'rooms of refuge' should be established, to which, in case of explosion, the miners might fly from the effects of the after-damp.

Mr Mallet has returned from Naples with a full report of the terrible, yet interesting phenomena of the earthquakes which occurred in that kingdom a few months ago. He found that the particulars hitherto published concerning the catastrophe are by no means exaggerated. Whole districts are literally ruined, turned upside down, as it were; and one of the towns through which he passed—a place as large as Tamworth—was, to use his own figure of speech, reduced to powder. He explored the effects of the shocks as far as they were visible in all directions, and has arrived at many important conclusions as to earthquake phenomena generally; all of which, as well as details of his journey, and pictures of the havoc, will appear in due time in a scientific journal. The journey, made in a severe season, exposed him to much privation; and besides witnessing the frightful destitution, he was attacked by fever, and delayed thereby for three weeks.

In France, M. Beclard has made some curious experiments on the Influence of Light on Animals, and finds that those creatures which breathe from the skin, and have neither lungs nor branchiæ, undergo remarkable modifications under different coloured rays. He exposed the eggs of flies (*Musca carnaria*) under bell-glasses of six different colours: little maggots were hatched from all; but those under the blue and violet rays were more than a third larger than those under the green. Frogs, which by reason of their naked skin, are very sensitive to light, give off half as much more carbonic acid in a given time under the green ray as under the red; but if the frogs are skinned, and the experiment is repeated, the excess is then with those under the red ray. Frogs placed in a dark chamber lose one-half less of moisture by evaporation, than when placed in common daylight. Hence it appears that these poor amphibians, which some physiologists believe were created for experimental purposes, after having furnished data as to the phenomena of the muscular and nervous systems, the effect of poisons on both, and thereby advancing the science of physiology, are now to be tortured into manifestations of the influence of light, for the benefit of humanity.—M. de la Rive, in the third volume of his *Treatise on Electricity*, just published, reviews the whole science of electro-physiology; and reminds practitioners that, as the difference between the electricity of the muscles and of the nerves is now clearly established, so must they be careful in applying their remedies, not to waste on the muscles, which are the best conductors, the electric currents intended solely for the nerves.

The Geological Society have had a paper on 'Changes of Level in Sicily, Wales, and Scotland;' and one on the 'Natural Origin of Rock Basins'—a question which, it might be thought, had been decided long ago in favour of nature. Sir Charles Lyell is busily employed on the important subject of volcanic geology; and it appears, to the no small pride and encouragement of geologists, that the more discoveries are made in their favourite science, the more do there appear still to make. Mr Henwood, while considering the numerous observations he has made on the temperature of mines, sets on foot the inquiry: whether the heat below the surface is caused by central fire, or by the simple juxtaposition of different rocks? And talking of mines, there is something to wonder at in the returns from the Burra Burra copper-mines, South Australia. The first excavations were made

in September 1845, by twelve miners; now the number of miners is more than a thousand, the ore hitherto dug has yielded 28,000 tons of copper; and a settlement numbering 5000 souls is established in the neighbourhood.—By news from Bahia we learn that about eighty leagues from that city, near the San Francisco river, a great natural deposit of nitrate of soda has been discovered, extending for sixteen miles along a valley.—Mr Colquhoun Grant, in a paper published by the Geographical Society, gives a description of Vancouver's Island, well worthy of consideration, seeing how much has been said concerning that island as a field for emigration. It is 270 miles long, and from 40 to 50 miles wide on the average, with but comparatively a small proportion of land available for cultivation, which is found upon the coast. The interior is described as hopelessly barren and dreary. The settlement of Victoria, founded in 1843 by the Hudson's Bay Company, is one of the pleasantest sites. But worst of all is the climate; nothing but snow and rain from October to March, and parching heat for the rest of the year. In the words of the Jesuit missionary—'huit mois d'hiver, et quatre mois d'enfer.'

Another fact connected with geology is the composition of building sandstones, on which some important information has recently been laid before the Royal Society of Edinburgh. Mr Bloxam made experiments on sandstone taken from Craighleith quarry and other places near Edinburgh, and finds, as one of the causes of disintegration, that even pure water will dissolve something out; carbonic acid more; and free mineral acids, such as are found in the rain-water of towns, most. The absorbent power is astonishingly great: a block of stone, submitted to a drying process, lost nearly six fluid ounces to the cubic foot; another block, soaked in water, gained more than three pints and a half to the cubic foot. Remarkable on these properties, Dr George Wilson truly says, 'the error of those who hope to render buildings dry, by constructing their walls of solid sandstone, will be sufficiently apparent.' Architects and builders will do well to bear these facts in mind when drawing plans for new houses, or when examining the specimens of building-stone from Scotland in the Crystal Palace.

An inquiry instituted by the Belgian government merits attention. For some years, a notion had grown into a belief that certain manufactories were prejudicial to health and vegetation, and so much disquiet arose thereupon, especially in the province of Namur, that the governor reported it to the home department at Brussels. A commission was appointed, two chemists and two botanists, who, commencing their inquiry in June 1855, pursued it carefully for several months, confining themselves to factories in which sulphuric acid, soda, copperas, and chloride of lime were made. The two chemists watched the processes, and noted the escape of gases from the chimneys. They consider soda-factories to be the most noxious, and tall chimneys more hurtful than short ones, because of the greater surface over which they diffuse the vapours; and tall chimneys, by quickening the draught, discharge gases which otherwise would be absorbed in the passage. Hence, contrary to the commonly received opinion in this country, they hold that there is less dispersion of deleterious vapours with a short chimney than a tall one.

The botanists on their part shew, as might be anticipated, that the effect on vegetation is most shewn in the direction of the prevalent winds, and more during rains and fogs than in clear weather. They establish beyond a doubt the hurtful influence of smoke, due to the presence of hydrochloric and sulphuric acid, and they find that the greatest

distance at which the mischief is observable is 2000 metres (a little over an English mile); the least 600 metres. They enumerate thirty-four kinds of trees which appear to be most susceptible of harm, beginning with the common hornbeam (*Carpinus Betulus*), and ending with the alder; and between these two occur, in sequence, beech, sycamore, lime, poplar, apple, rose, and hop. As regards the effect on the health of men and animals, the commission find the proportion of deaths per cent. to be lower now in the surrounding population than before the factories were established: from 1 in 58 it has fallen to 1 in 66. One reason for this improvement may consist in the better means of living arising out of the wages earned in the factories. However, the commission wind up their report with an assurance that health, either of men or horses, suffers nothing from the factories, and vegetation so little, that farmers and graziers may dismiss their fear, and the government refrain from interfering.

The Academy of Sciences at Vienna is actively engaged in multiplying stations for meteorological observation throughout the Austrian empire.—In Upper Canada, the education office at Toronto has made arrangements whereby certain senior grammar-schools all over the province shall be furnished with trustworthy instruments made in England for taking complete series of observations; from all of which we may hope for valuable results.—There are, again, certain curious weather-facts to record: on the 21st of April it was hotter in Turin—65 degrees—than in any of the stations in correspondence with Paris, two of which are Algiers and Madrid; but here in London on the 16th of the same month, the temperature rose to 76 degrees, and the day ended with a heavy thunder-storm.

Lovers of ancient art will be gratified to hear that a considerable collection of the Budrum antiquities are now in the British Museum. They are believed to be of the age of Mausolus.—The postmaster-general's report shews that the number of letters delivered within the United Kingdom in 1857 was 504,000,000, an increase of 26 million over 1856. As many letters pass through the Manchester post-office alone as were delivered in the whole of Russia in 1855—namely, 16 million. The average distribution of that astounding number of letters was 21 to every person in England, 16 in Scotland, and 9 in Ireland.

DR ELIZABETH BLACKWELL.

It is not customary for one periodical work to make extracts from another; but there may be instances in which a breach of the rule will be held as justified. We find, in the second number of a new monthly magazine, styled the *English Woman's Journal*, a piece of actual life-history of a most heroic and touching character. By presenting some parts of it to a wider circle of readers, we believe we shall be at once improving the hearts of our friends by a profoundly interesting story, and making known to them a clever and promising aspirant of the periodical press, having specially in view the advancement of the interests of womankind. The narrative is an account of the professional education of a young Englishwoman residing in America, who has somewhat astonished the world by becoming a regular diplomaed physician, and settling in that capacity in New York. The narrative is the production of an admiring and sympathising sister. Elizabeth Blackwell was the eldest of a family of seven, thrown with their mother on the world by the early death of their father in embarrassed circumstances. She had a severe struggle for some years, striving to maintain herself and help the junior branches by teaching. At length, having by inconceivable self-denial saved a little money, she entered upon a course of education for the profession of a physician, being of opinion that women are fitted to become medical practitioners, and that she would be doing her

sex some service by shewing them the way. It will be found in the ensuing extract, what difficulties, in addition to those of poverty, she had to overcome before the attainment of her wishes.

"In May 1847, after three years of incessant application, during which the closest study had occupied every moment not engaged in teaching, she left Charleston, and went to Philadelphia, where she endeavoured to obtain admittance to the medical schools, but without success. The physicians at their head were either shocked or angry at her request, and the doors of all those schools were closed against so unprecedented an application; and finding it impossible to avail herself of the facilities provided for students of the other sex, she now entered upon a course of private anatomical study and dissection with Professor Allen, and of midwifery with Dr Warrington of Philadelphia. But although she could undoubtedly learn much from the private lessons of competent instructors, she felt that so fragmentary a mode of study could not give her the solid medical education resulting from a regular collegiate course; and, moreover, as it was her aim not to incite ignorant or half-educated female pretenders to an unauthorised assumption of the physician's office, but, on the contrary, to procure the opening of the legitimate approaches of the medical career to women seriously desirous to qualify themselves for the worthy discharge of its duties, by passing through the course of preparation prescribed to men, her admission to a regular medical college, and the acquisition of the medical diploma—as a sanction for her own course and a precedent for other women—were essential to the carrying out of her plans. She therefore procured a list of all the medical colleges in existence in the United States, and proceeded to address an application for admission to each of them in succession.

"I am sending out arrows in every direction, uncertain which may hit the mark," she remarks in a letter written at this time.

"Her application, though accompanied by a certificate of her having gone through the requisite preparatory study under Dr Dickson, was refused by twelve medical colleges. In some cases, the refusal was couched in the shape of a homily on the subordinate position assigned to woman by nature and society, and her presumption in wishing to enter a sphere reserved to the nobler sex; or an exposition of the impropriety and indelicacy implied in a woman's attempting to learn the nature and laws of her own physical organisation. For several months it appeared as though even her tenacity of purpose would fail to break through the barriers of prejudice and routine opposed to her on every side. But at length her path, so long obstructed, began to grow clearer.

"Among the applications she had made throughout the length and breadth of the United States, one had been addressed to the Medical College of the University of Geneva, in the state of New York. The faculty of that institution having considered her request, agreed that they saw no reason why a woman, possessed of the requisite preparatory acquirements, should not be admitted; but feeling that the question was one whose decision must rest, practically, with the students themselves—as it would have been easy for them, if so disposed, to render a place in the amphitheatre untenable by a lady—they determined to refer the matter to them, and, having called them together, left the application with them for examination and decision. The students, having discussed the subject, decided unanimously in favour of the new applicant; and a "preamble" and "resolutions" were drawn up and voted by them, inviting her to enter the college, and pledging themselves "individually and collectively, that, should she do so, no word or act of theirs should ever cause her to regret the step."

"A copy of these "resolutions," accompanied by a letter of invitation from themselves, having been transmitted to her by the faculty of the university, she went to Geneva in November of that year, was entered on the college books as "No. 417," and threw herself into the study of the various branches of medical learning thus opened to her, with an ardour proportioned to the

difficulties she had had to overcome in gaining access to them.

"But the position she had striven so hard to attain was not without certain inconveniences, inseparable from the nature of the case; and though she had weighed, and was prepared to endure them, for the sake of the knowledge that she could obtain in no other way, it will be readily understood that a young and sensitive woman could not find herself placed in so novel a situation, and assist at all the demonstrations involved in a complete course of medical exposition, without occasional severe trial to her feelings. Aware that the possibility of her going through with such a course depended on her being able, by her unmoved deportment, to cause her presence there to be regarded, by those around her, not as that of a woman among men, but of one student among five hundred: confronted only with the truth and dignity of natural law, she restricted herself, for some time after her entrance into the college, to a diet so rigid as almost to trench upon starvation, in order that no involuntary change of colour might betray the feeling of embarrassment occasionally created by the necessary plain-speaking of scientific analysis. How far the attainment of a self-command which rendered her countenance as impassable as that of a statue can be attributed to the effect of such a diet, may be doubtful; but her adoption of such an expedient is too characteristic to be omitted here.

"From her first admission into the college until she left it, she also made it an invariable rule to pass in and out without taking any notice of the students; going straight to her seat, and never looking in any other direction than to the professor, and on her note-book.

"How necessary was her circumspection to the prosecution of the arduous task she had assumed, may be inferred from an incident which occurred during the lecture in the amphitheatre, a short time after her admission. The subject of the lesson happened to be a particularly trying one; and while the lecturer was proceeding with his demonstration, a folded paper—evidently a note—was thrown down by somebody in one of the upper tiers behind her, and fell upon her arm, where it lay, conspicuously white, upon the sleeve of her black dress. She felt, instinctively, that this note contained some gross impertinence, that every eye in the building was upon her, and that, if she meant to remain in the college, she must repel the insult, then and there, in such a way as to preclude the occurrence of any similar act. Without moving, or raising her eyes from her note-book, she continued to write, as though she had not perceived the paper; and when she had finished her notes, she slowly lifted the arm on which it lay, until she had brought it clearly within view of every one in the building, and then, with the slightest possible turn of the wrist, she caused the offensive missive to drop upon the floor. Her action, at once a protest and an appeal, was perfectly understood by the students; and, in an instant, the amphitheatre rang with their energetic applause, mingled with hisses directed against her cowardly assailant. Throughout this scene she kept her eyes constantly fixed upon her note-book, taking no more apparent notice of this welcome demonstration than she had done of the unwelcome aggression which had called it forth. But her position in the college was made from that moment; and not the slightest annoyance of any kind was ever again attempted throughout her stay. On the contrary, a sincere regard at once kindly and respectful, was thenceforward evinced towards her by her fellow-students; and though, for obvious reasons, she still continued to hold herself aloof from social intercourse with them, yet, whenever the opportunity of so doing presented itself in the course of their common studies, they always shewed themselves ready and anxious to render her any good offices in their power, and some of them are among her truest friends at this day.

"The feeling of embarrassment which had caused her so much pain on her first appearance among her fellow-students was, however, soon modified by familiarity with

topics forming the subject of daily study, and was at length entirely absorbed in the growing interest and admiration excited by the wonderful and beautiful mechanism of the human frame. But the suffering it had caused her, on her entrance into the college, suggested to her the desirability of providing a first-class medical school for the reception of female students only—an institution which she hopes to establish in the course of time.

But though the "lady-student" had thus made good her position within the walls of the college, the suspicious and hostile curiosity with which she was regarded in the little town was long in subsiding. She could not, at first, obtain admission to a suitable boarding-house; the heads of those establishments having been threatened with the desertion of their "best" inmates if she were received. As she went through the streets, on her way to and from the college, audible whispers of "Here she comes!" or rude cries of "Come on, Bill, let's have a good look at the lady-doctor!" would meet her ears; and not only idle boys, but well-dressed men and women, would place themselves before her, or draw up in little knots along the pavement, to see her go by, as though she had been some strange animal from another planet. But the passage of the quiet-looking little figure, dressed with the utmost simplicity, taking no notice of the rude people about her, and looking neither to the right hand nor to the left, gradually ceased to excite remark; and when she had been called upon by the wives of some of the professors, the most "respectable" of the boarding-houses consented to receive her as an inmate. . . .

'From the time when she had first resolved to enter upon the study of medicine, until a very recent period, she pursued a system of self-denial in every branch of personal expenditure so rigid that it would be hardly credible to those who had not witnessed its details, and involving privations that only her exceptional temperament could have enabled her to undergo. Her arrangements were invariably made on the most inexpensive scale; she put up with the simplest accommodations, dressed with more than Quaker plainness, went about on foot in all weathers to the utmost limit of her strength, and resolutely denied herself everything, without exception, that it was possible for her to do without. Her refusing herself a little bottle of eau de Cologne, which she could have bought for fourpence-half-penny, and to which, being very fond of scents, she happened one day to take such an especial fancy that she was haunted for years with occasional visions of that same little bottle, was in accordance with the invariable rule she had marked out for herself. Acts of rare generosity on her part towards others during this period might be cited; but with regard to herself—although additional resources were placed at her disposal by her relatives in England—her self-denial was inexorable; every farthing thus economised being regarded by her as so much gained for the exigencies of future study, and treasured accordingly. Such having been her mode of action from the beginning of her student's career, it was not without an almost heroic effort that, as her course of study drew towards its close, she compelled herself to purchase a handsome black silk dress for the grand affair of her graduation. In a letter written at that time, she says: "I am working hard for the parchment, which I suppose will come in due time; but I have still an immense amount of dry reading to get through with and to beat into my memory. I have been obliged to have a dress made for the graduation ceremony; and meanwhile it lies quietly in my trunk, biding its time. It is a rich black silk, with a cape, trimmed with black silk fringe, and some narrow white lace round the neck and cuffs. I could not avoid the expense, though a grievous one for a poor student; for the affair will take place in a crowded church; I shall have to mount to a platform, on which sits the president of the university in gown and triangular hat, surrounded by rows of reverend professors; and of course I can neither disgrace womankind, the college, nor the Blackwells, by presenting myself in a shabby gown."

'In January 1849, the ceremony in question took

place, as just described. The church was crowded to suffocation; an immense number of ladies being present, attracted from every point of the compass, from twenty miles round, by the desire to witness the presentation of the first medical diploma ever bestowed on a woman; and among the crowd were some of her own family, who had come to Geneva to be present on the occasion. When the preliminary ceremonial had been gone through with, and various addresses had been delivered, the wearer of the black silk dress ascended to the platform with a number of her brother-students, and received from the hands of Dr Lee, the venerable president of the university, the much-desired diploma, which with its seal and blue ribbon, and the word *Dominus* changed to *Domina*, admitted her into the ranks of the medical fraternity, hitherto closed against her sex. Each student, on receiving the diploma, returned a few words of thanks. On receiving hers, Dr Elizabeth replied, in a low voice, but amidst a hush of curiosity and interest so intense that the words were audible throughout the building:

"I thank you, Mr President, for the sanction given to my studies by the institution of which you are the head. With the help of the Most High, it shall be the endeavour of my life to do honour to the diploma you have conferred upon me."

The president, in his concluding address, alluded to the presence of a lady-student during the collegiate course then closing, as "an innovation that had been in every way a fortunate one;" and stated that "the zeal and energy she had displayed in the acquisition of science had offered a brilliant example to the whole class;" that "her presence had exercised a beneficial influence upon her fellow-students in all respects;" that "the average attainments and general conduct of the students during the period she had passed among them were of a higher character than those of any class that had been assembled in the college since he had been connected with the institution;" and that "the most cordial good wishes of her instructors would go with her in her future career."

Dr Elizabeth Blackwell is now a highly successful doctor at New York, where she has been latterly joined by a junior sister, Dr Emily Blackwell, who has passed through the same professional education with equal *debat*, but under greatly less difficulty.

DEEDS, NOT WORDS.

WHEREFORE bid me say I love you?

Nay—appeal you to the past;
If my deeds no tale have told you,
Words may to the winds be cast;
These, though every hour repeated,
Ne'er had held your heart so fast.

Years ago I would not bind you,
Though your pledge you bade me take;
Lest some future day should find you,
For your honour's, not my sake,
Riveting, before God's altar,
Chains you rather longed to break.

Think not that your love I doubted
Even in its earliest spring;
But I asked myself the question:
What will years of waiting bring?
God be thanked—the trial ended,
Both our hearts the closer cling.

Why, then, bid me say 'I love you';
Look into the past, and see
If each thought of mine and labour,
Were not for us—not for me.
Deeds, not words, have bound us—may we
Still by them united be.

Grimsby.

RUTH BUCK.

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